

1. (Currently Amended) A heart valve leaflet fastener comprising at least one pair of arms, at least one arm of the pair of arms having a tapered protrusion extending toward the other arm of the pair of arms and at least one arm~~the other arm~~ of the at least one pair of arms having a blind-tapered slot for accepting the tapered protrusion therein for fastening two adjacent tissue heart valve leaflets, wherein the arms pivot from one orientation to a gripping position with ends of respective paired arms being directed toward each other such that the tapered protrusion positions within the tapered slot to grip the two adjacent tissue heart valve leaflets.
2. (Withdrawn) The heart valve leaflet fastener of claim 1 wherein the arms flex relative to a core, and wherein the fastener has a gripping position where the pair of arms meet under tension.
3. Canceled
4. (Previously Presented) A kit comprising a cardiac catheter, a fastener applicator and a leaflet fastener of claim 1, the cardiac catheter having suitable dimensions for deployment and insertion into a human heart in the vicinity of the mitral or tricuspid valve, the leaflet fastener having a size allowing insertion through the cardiac catheter, the fastener applicator releasably holding the leaflet fastener.
5. (Original) The kit of claim 4 wherein the paired arms comprise gripping elements that extend toward each other when the fastener is in a gripping position.
6. (Withdrawn) The kit of claim 4 wherein the opposed arms of a pair of arms comprise a pointed tip and a clasp that engage each other in the gripping position.

7. (Original) The kit of claim 4 wherein the arms flex to a low profile position to fit within the cardiac catheter.
8. (Withdrawn) The kit of claim 4 wherein the fastener applicator comprises a shaft and a sleeve that slides over the shaft and wherein at least one member of the pair of arms slides along the shaft with the sleeve engaging the sliding arms to constrain their movement along the shaft.
9. (Withdrawn) The kit of claim 8 wherein the arms can slide along the shaft between a low profile position for fitting within the cardiac catheter and an extended gripping position for gripping leaflets.
10. (Original) The kit of claim 4 wherein the arms pivot between a low profile position and an unconstrained extended position.
11. (Original) The kit of claim 4 wherein the fastener applicator comprises a shaft and a bayonet fastener that releasably holds the leaflet fastener on the shaft.
12. (Original) The kit of claim 4 wherein the fastener applicator comprises a shaft and a latch that releasably holds the leaflet fastener on the shaft.
13. (Previously Presented) A device comprising a catheter, a leaflet fastener applicator and a leaflet fastener of claim 1, the catheter having a proximal end, a distal end and suitable dimensions for insertion into a heart, the leaflet fastener applicator passing through the catheter being actuatable from the proximal end of the catheter and a fastening element projecting from the distal end of the catheter, the leaflet fastener applicator releasably holding the leaflet fastener.
14. (Withdrawn) A heart valve repair instrument comprising a ring and a ring applicator, wherein the ring is releasably attachable to the applicator, the ring comprises two pointed shafts and wherein the applicator can apply a force to the ring to bring the points of the shafts toward each other

relative to an initial position, wherein the ring comprises a curved tube extending from one pointed shaft into which the second pointed shaft extends, the ring and applicator having an appropriate size for placement within a chamber of a human heart.

15. (Canceled)

16. (Withdrawn) The instrument of claim 14 wherein the ring further comprises a spring within the tube between the respective pointed shafts and a releasable lock that can hold the second pointed shaft within the tube in a locked position and wherein the force applicator can apply a force to release the lock.

17. (Withdrawn) The instrument of claim 14 wherein the two pointed shafts extend from a notch that is a weak point at which the ring can be deformed to direct the pointed shafts toward each other.

18. (Previously Presented) A heart valve repair instrument comprising a shaft, a cap, a gripper and a flexible rod, wherein the gripper comprises a plurality of arms radiating from a pivot with each arm having a spike, wherein the cap is located distal to the pivot and the pivot is located distal to the shaft, and wherein the flexible rod connects to the cap to provide for movement of the cap relative to the pivot of the gripper and the shaft by pulling the flexible rod, the cap having an opening that can be positioned over the pivot to lock the arms in a closed position.

19. Canceled.

20. (Original) The instrument of claim 18 wherein the pivot is formed from spring metal or memory metal.

21. (Withdrawn) The instrument of claim 20 wherein the plurality of arms comprises two pairs of

arms wherein pairs of arms are connected by a resilient web.

22. (Withdrawn) The instrument of claim 21 wherein the web is covered with fabric.

23. (Original) The instrument of claim 20 wherein the memory metal comprises a nickel alloy.

24. (Previously Presented) The instrument of claim 20 wherein the memory metal is selected from the group consisting of cobalt-chromium-nickel-molybdenum alloy, MP35N, nickel-titanium alloy, stainless steel and spring metal.

25. (Original) The instrument of claim 18 wherein the pivot comprises a hinge.

26. (Original) The instrument of claim 25 wherein the hinge comprises a spring.

27. (Withdrawn) The instrument of claim 18 wherein the arms are biased to an extended position due to expansive forces at the pivot and further comprising strands that connect the shaft with the arms to constrain the extension of the arms.

28. (Original) The instrument of claim 18 wherein the flexible rod has a disengaging mechanism that releasably connects the cap to the rod.

29. (Withdrawn) The instrument of claim 18 wherein the cap comprises a ridge and the gripper comprise a bump positioned to engage the ridge in the locked position.

30. (Currently Amended) A fastening member comprising a cap and a gripper configured to grip a tissue heart valve leaflet, the cap being slideable relative to the gripper, wherein the gripper comprises a plurality of arms radiating from a pivot, with at least a first arm having a tapered spike, and at least a second arm having a plurality of spikes such that a tapered slot is formed between the

plurality of spikes, wherein the pivot is inserted within an opening in the cap to lock the arms in a collapsed gripping position such that the tapered spike positions within the tapered slot.

31. (Original) The fastening member of claim 30 wherein the cap comprises a locking mechanism that engages the gripper to lock the gripper in a locked position.

32. (Original) The fastening member of claim 30 wherein the cap comprises a slot, and wherein the gripper is held by stops within the slot such that the gripper can slide within the slot to alter the extension of the gripper with the stops preventing separation of the cap and gripper.

33. (Original) A kit comprising the fastening member of claim 30 and a flexible rod, the flexible rod has a disengaging mechanism that permits the flexible rod to releasably hold the cap.

34. Canceled

35. Canceled